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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,632	10/13/2000	Jean-Pierre Tahon	4907/Oconalign	8441
6858	7590	07/02/2004	EXAMINER	
BREINER & BREINER 115 NORTH HENRY STREET P. O. BOX 19290 ALEXANDRIA, VA 22314			HON, SOW FUN	
			ART UNIT	PAPER NUMBER
			1772	

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/689,632	TAHON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sow-Fun Hon	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4,5,7-14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4,5,7-14,17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Rejections Repeated***

1. The 35 U.S.C. 103(a) rejections of claims 4, 5, 7-14, 17 have been repeated for the reasons previously of record in the Office action dated 10/22/2003.

### ***Response to Arguments***

2. Applicant argues that Escher does not teach that poly (3,4-dioxyalkylene thiophene) exhibits liquid crystal orienting properties since Escher merely claims that poly (3,4-dioxyalkylene thiophene) exhibits liquid crystal orienting properties but does not provide enabling experimental support.

Applicant is respectfully apprised that the teaching by Escher that the poly (3,4-dioxyalkylene thiophene) has good orienting properties is sufficient in terms of suggesting to one of ordinary skill in the art to use it as an orienting layer. Since the polymer layer is mechanically rubbed to form an orienting layer (gently stroked twice in the same direction) ('538, column 5, lines 20-55) it is the examiner's position that the disclosure is enabling. Applicant is respectfully requested to demonstrate how and why the experimental support is not enabling.

3. Applicant argues that since no reference is made to DE-A 3,717,668, DE-A 3,628,895, DE-A 3,736,114 or to any corresponding applications thereof in the disclosure of formula (I) of Escher et al., the options for R<sup>1</sup> and R<sup>2</sup> in the formula (II) of Escher et al. cannot have a greater scope than those for formula (I) and hence any implied allusion to a previous description of R<sup>1</sup> and R<sup>2</sup> in DE-A 3,717,668, DE-A 3,628,895, DE-A

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3,736,114 or to any corresponding applications thereof must be limited to the options for  $R^1$  and  $R^2$  in formula (I).

Applicant is respectfully apprised that the mere disclosure of the electrically conducting polymers of formula (II) right after formula (I) is indicative that formula (II) may be used as an alternate in place of preferred formula (I). Escher et al. does not teach against the use of the electrically conducting polymers of formula (II).

4. Applicant argues that none of the references of DE-A 3,717,668, DE-A 3,628,895, DE-A 3,736,114 were incorporated by reference into Escher.

Applicant is respectfully reminded that the incorporation of these references into the summary (not the background) of the invention of Escher is motivation enough for one of ordinary skill in the art to look them up.

5. Applicant argues that since formula (II) is within the teaching of formula (I),  $R^3$  and  $R^4$  in formula (II) must correspond to  $R^1$  and  $R^2$  in formula (I).

Applicant is respectfully reminded that one of ordinary skill in the art would not base routine experimentation solely on the premise above. On the contrary, one of ordinary skill in the art would have been motivated to try the alternate formula (II) to determine what the alternate conductive properties and other physical parameters would be.

6. Applicant argues that an alkoxy group is an alkyl radical attached to the remainder of the molecule by oxygen and is not an alkylene radical attached to the remainder of the molecule by oxygen.

Applicant is respectfully reminded that the supporting reference is Kämpf et al. in the rejection.

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7. Applicant argues that Kämpf does not disclose the preparation of poly(3,4-dioxyalkylenethiophene)s and that while Kämpf purports to disclose solvent-soluble oligomers of poly(3,4-dioxyalkylenethiophene)s, later research show such to be insoluble and not swellable in solvent and solvent mixtures thus demonstrating that Kämpf is not enabled by experimental data.

Applicant is respectfully apprised that the teaching by Kämpf of the use of poly(3,4-dioxyalkylenethiophene)s as an electrically conducting (electroconductive) coating ('414, column 2, lines 25-70), and the inclusion of its parent DE-A 3,717,668 in Escher et al. (primary reference) as teaching alternate electrically conducting embodiments of poly(3,4-dioxyalkylenethiophene), provide sufficient motivation for one of ordinary skill in the art to have used the alternate embodiments of poly(3,4-dioxyalkylenethiophene) of taught by Kämpf as the electrically conductive poly(3,4-dioxyalkylenethiophene) in the orienting layer of Escher et al.

8. Applicant's arguments against the rejection containing Eguchi are directed against the valid combination of Escher in view of Kämpf. They have been addressed above.

### *Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*SH*  
Sow-Fun Hon  
06/25/04

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

6/29/04